

In the claims:

Cancel claims 3, 4, 8, 9, without prejudice.

Amend the following claims:

1. A method of producing curved lengths of spring band steel, comprising the steps of bending a spring band steel (10) which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32), bending back by a lesser bending degree than during the bending in an opposite direction, cutting the length of spring band steel (11) that is [treated in this manner] bent from the spring band steel (10); an embodying [less] a last one of the three support points (25) for the bending of the spring band steel as a cutting edge (30) [with a cutting edge (30)] on which a cutting blade (31) is conveyed [passed] in order to cut the length of the spring band steel (11).

3/5. A method as defined in claim 1; and further comprising setting the bending degree of the spring band steel (10) in the three support points (23-25) to be greater by the reverse bending degree at [the] a fourth support point (32) than a required final bending radius of the length of spring band steel (11).

5/7. A method as defined in claim 1; and further comprising providing [the] a reverse bending degree of the bending back step to be 10-20% of [the] a bending degree pf the bending step.

7/11. A device for producing curved lengths of spring band steel (11), comprising a bending unit (20) comprised of three support points (23-25) spaced apart from one another through which a spring band steel (10), which is made up of the lengths of spring band steel (11) that are disposed one after another and are of one piece with one another, can be conveyed so that the support points (23 - 25) rest against alternating band sides in the spring band steel advancing direction, wherein the center support point (24) is embodied so that it can be moved lateral to the spring band steel (10) in order to adjust a bending radius; a reverse bending unit (22), which is disposed after the bending unit (20) in the advancing direction of the spring band steel (10) and includes a fourth support point (32) that engages the

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same band side of the spring band steel (10) as the [central] support point (24) of the bending unit (20), which fourth support point (32) can be moved lateral to the spring band steel (10) in order to adjust a reverse bending radius; a cutting unit (21) for cutting the length of spring band steel (11) passing through the [banding] bending and reverse bending unit (20, 22) from the spring band steel (10), the cutting unit (21) being disposed between the bending and reverse bending unit (20, 22).

<sup>13</sup>  
~~17~~. A device as defined in claim <sup>1</sup>~~15~~, wherein [the] a reverse bending degree of the bending back step is selected to be 10-20% of [the] a bending degree of the bending step.

<sup>15</sup>  
~~19~~. A device as defined in claim <sup>1</sup>~~12~~, wherein the first support point (23) of the bending unit (20) in the advancing direction of the spring band steel (10) is embodied so that it can be moved[, preferably manually], lateral to the spring band steel (10) in the direction of the band thickness.

<sup>16</sup>  
~~20~~. A device as defined in claim <sup>1</sup>~~12~~, wherein [the] two of the support points (23, 24) of the bending unit (20) and the support point (32) of the reverse bending unit (22) are constituted by the circumference of rollers (26, 27, and 33).

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21. A device as defined in claim 11, wherein the spring band steel (10) is wound on a storage roll (15) and that the spring band steel (10) is conveyed between at least two driven advancing rollers (13, 14), which engage opposite band sides of the spring band steel (10), take the spring band steel (10) from the storage roll (15), and supply [it tot he] the spring band steel (10) to the bending unit (20).

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22. A device as defined in claim 11, wherein a number of rollers [selected from the group consisting of guide rollers (16-19) and guide rails] are disposed ahead of the bending unit (20) and rest in pairs against opposite sides of the spring band steel (10).

Amended claims:

al 1. A method of producing curved lengths of spring band steel, comprising the steps of bending a spring band steel (10) which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32), bending back by a lesser bending degree than during the bending in an opposite direction, cutting the length of spring band steel (11) that is bent from the spring band steel (10); an embodying a last one of the three support points (25) for the bending of the spring band steel as a cutting edge (30) on which a cutting blade (31) is conveyed in order to cut the length of the spring band steel (11).

ar 3 5. A method as defined in claim 1; and further comprising setting the bending degree of the spring band steel (10) in the three support points (23-25) to be greater by the reverse bending degree at [the] a fourth support point (32) than a required final bending radius of the length of spring band steel (11).

5. A method as defined in claim 1; and further comprising providing [the] a reverse bending degree of the bending back step to be 10-20% of [the] a bending degree of the bending step.

11. A device for producing curved lengths of spring band steel (11), comprising a bending unit (20) comprised of three support points (23-25) spaced apart from one another through which a spring band steel (10), which is made up of the lengths of spring band steel (11) that are disposed one after another and are of one piece with one another, can be conveyed so that the support points (23 - 25) rest against alternating band sides in the spring band steel advancing direction, wherein the center support point (24) is embodied so that it can be moved lateral to the spring band steel (10) in order to adjust a bending radius; a reverse bending unit (22), which is disposed after the bending unit (20) in the advancing direction of the spring band steel (10) and includes a fourth support point (32) that engages the same band side of the spring band steel (10) as the support point (24) of the bending unit (20), which fourth support point (32) can be moved lateral to the spring band steel (10) in order to adjust a reverse bending radius; a cutting unit (21) for cutting the length of spring band steel (11) passing through the bending and reverse bending unit (20, 22) from the spring band steel (10),

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the cutting unit (21) being disposed between the bending and reverse bending unit (20, 22).

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17. A device as defined in claim <sup>11</sup>15, wherein a reverse bending degree of the bending back step is selected to be 10-20% of a bending degree of the bending step.

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*a6*

19. A device as defined in claim <sup>11</sup>12, wherein the first support point (23) of the bending unit (20) in the advancing direction of the spring band steel (10) is embodied so that it can be moved, lateral to the spring band steel (10) in the direction of the band thickness.

20. A device as defined in claim <sup>16</sup>12, wherein two of the support points (23, 24) of the bending unit (20) and the support point (32) of the reverse bending unit (22) are constituted by the circumference of rollers (26, 27, and 33).

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21. A device as defined in claim <sup>7</sup>11, wherein the spring band steel (10) is wound on a storage roll (15) and that the spring band steel (10) is conveyed between at least two driven advancing rollers (13, 14), which engage opposite band sides of the spring band steel (10), take the spring

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band steel (10) from the storage roll (15), and supply the spring band steel (10) to the bending unit (20).

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22. A device as defined in claim 11, wherein a number of rollers are disposed ahead of the bending unit (20) and rest in pairs against opposite sides of the spring band steel (10).

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(Add the following claims:

<sup>19</sup>  
23. A method of producing curved lengths of spring band steel,

comprising the steps of bending a spring band steel (10) which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32), bending back by a lesser bending degree than during the

bending in an opposite direction, cutting the length of spring band steel (11), <sup>by the three support points (23-25)</sup> and establishing that is bent from the spring band steel (10); ~~an embodying~~ <sup>and establishing</sup> a last one of the

three support points (25) for the bending of the spring band steel as a cutting

edge (30) on which a cutting blade (31) is conveyed in order to cut the length <sup>before the subsequent support point (32)</sup> of the spring band steel (11); marking the lengths of spring band steel (11)

in the spring band steel (10) by trigger holes in the spring band steel (10);

and using the trigger holes to trigger a beginning and end of the bending and

reverse bending and to trigger a cutting process.

<sup>20</sup>  
24. A method of producing curved lengths of spring band steel,

comprising the steps of bending a spring band steel (10) which is made up

of lengths of spring band steel (11) that adjoin one another and are of one

piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32), bending back by a lesser bending degree than during the bending in an opposite direction, cutting the length of spring band steel (11) that is bent from the spring band steel (10); ~~an embodying~~ <sup>by the three support points (23-25) and establishing</sup> a last one of the three support points (25) for the bending of the spring band steel as a cutting edge (30) on which a cutting blade (31) is conveyed in order to cut the length of the spring band steel (11); <sup>before the subsequent support point (32)</sup> and optically measuring at least a part of the cut lengths of spring band steel (11) and comparing to preset reference values; and using average deviations from reference value to correct the bending and reverse bending.

<sup>21</sup>  
25. A method of producing curved lengths of spring band steel, comprising the steps of bending a spring band steel (10) which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32), bending back by a lesser bending degree than during the bending in an opposite direction, cutting the length of spring band steel (11) <sup>downstream of the three support points (23-25)</sup> <sup>by the three support points (23-25)</sup>

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that is bent from the spring band steel (10); <sup>and establishing</sup> ~~an~~ embodying a last one of the three support points (25) for the bending of the spring band steel as a cutting

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edge (30) on which a cutting blade (31) is conveyed in order to cut the length <sup>before the subsequent support point (32)</sup> of the spring band steel (11); and embodying a center of the three support points (24) for the bending of the spring band steel and a fourth support point

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(24) for the reverse bending of the spring band steel so that, they can respectively be moved lateral to the spring band steel (10) in direction of a band thickness (d) and their lateral movements relative to the spring band steel (10); and controlling their lateral movements relative to the spring band steel (10) in accordance with predetermined programs which take into account a varying material thickness within the lengths of the spring band steel.

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26. A method of producing curved lengths of spring band steel, comprising the steps of bending a spring band steel (10) which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent <sup>downstream of the three support points (23-25)</sup> support point (32) bending back by a lesser bending degree than during the <sup>by the three support points (23-25)</sup> bending in an opposite direction, cutting the length of spring band steel (11)

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and establishing  
that is bent from the spring band steel (10); ~~an embodying~~ a last one of the  
three support points (25) for the bending of the spring band steel as a cutting  
edge (30) on which a cutting blade (31) is conveyed in order to cut the length  
of the spring band steel (11); and embodying a center of the three support  
points (24) for the bending of the spring band steel and a fourth support point  
(24) for the reverse bending of the spring band steel so that, they can  
respectively be moved lateral to the spring band steel (10) in direction of a  
band thickness (d) and their lateral movements relative to the spring band  
steel (10); and controlling their lateral movements relative to the spring band  
steel (10) in accordance with predetermined programs which take into  
account a constant material thickness within the lengths of the spring band  
steel.

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A method of producing curved lengths of spring band steel,  
comprising the steps of bending a spring band steel (10) which is made up  
of lengths of spring band steel (11) that adjoin one another and are of one  
piece with one another, between three support points (23-25), which are  
spaced from each other in a spring band steel advancing direction and rest  
against alternating band sides of the spring band steel (10); at a subsequent  
support point (32), <sup>down stream of the three support points (23-25)</sup> bending back ~~than during the bending~~ in an opposite  
direction, cutting the length of spring band steel (11) that is bent from the

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spring band steel (10); and embodying a center of the three support points (24) for the bending of the spring band steel and a fourth support point (24) for the reverse bending of the spring band steel so that, they can respectively be moved lateral to the spring band steel (10) in direction of a band thickness (d) and their lateral movements relative to the spring band steel (10); and controlling one of the support points during the bending and one of the support points during the reverse bending in accordance with predetermined programs which take into account a varying material thickness within the lengths of the spring band steel.

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In the claims:

Cancel claims 3, 4, 8, 9, without prejudice.

Amend the following claims:

1. A method of producing curved lengths of spring band steel, comprising the steps of bending a spring band steel (10), which is made up of lengths of spring band steel (11) that adjoin one another and are of one piece with one another, between three support points (23-25), which are spaced from each other in a spring band steel advancing direction and rest against alternating band sides of the spring band steel (10); at a subsequent support point (32) <sup>downstream of the three support points</sup> bending back by a lesser bending degree than during the bending <sup>by the three support points</sup> in an opposite direction, cutting the length of spring band steel (11) that is [treated in this manner] bent from the spring band steel (10); <sup>and</sup> an <sup>establishing</sup> (embodying) [less] a last one of the three support points (25) for the bending of the spring band steel as a cutting edge (30) [with a cutting edge (30)] on which a cutting blade (31) is conveyed [passed] in order to cut the length of the spring band steel (11). <sup>before the subsequent support point</sup>

5. A method as defined in claim 1; and further comprising setting the bending degree of the spring band steel (10) in the three support points (23-25) to be greater by the reverse bending degree at [the] a fourth support point (32) than a required final bending radius of the length of spring band steel (11).

7. A method as defined in claim 1; and further comprising providing [the] a reverse bending degree of the bending back step to be 10-20% of [the] a bending degree pf the bending step.

11. A device for producing curved lengths of spring band steel (11), comprising a bending unit (20) comprised of three support points (23-25) spaced apart from one another through which a spring band steel (10), which is made up of the lengths of spring band steel (11) that are disposed one after another and are of one piece with one another, can be conveyed so that the support points (23 - 25) rest against alternating band sides in the spring band steel advancing direction; wherein the center support point (24) *of the three support points* is embodied so that it can be moved lateral to the spring band steel (10) in order to adjust a bending radius; a reverse bending unit (22), which is disposed after the bending unit (20) in the advancing direction of the spring band steel (10) and includes a fourth support point (32) that engages the

same band side of the spring band steel (10) as the <sup>center</sup> [central] support point (24) of the <sup>three support points (23-25) of the</sup> bending unit (20), which fourth support point (32) can be moved lateral to the spring band steel (10) in order to adjust a reverse bending radius; a cutting unit (21) for cutting the length of spring band steel (11) passing through the [banding] bending and reverse bending unit (20, 22) from the spring band steel (10), the cutting unit (21) being disposed between the bending and reverse bending unit (20, 22) <sup>with a cutting edge of the cutting unit establishing a last one of the three support points, in the conveying direction</sup>

17. A device as defined in claim 15, wherein [the] a reverse bending degree of the bending back step is selected to be 10-20% of [the] a bending degree of the bending step.

19. A device as defined in claim 12, wherein the first support point (23) of the bending unit (20) in the advancing direction of the spring band steel (10) is embodied so that it can be moved[, preferably manually], lateral to the spring band steel (10) in the direction of the band thickness.

20. A device as defined in claim 12, wherein [the] two of the support points (23, 24) of the bending unit (20) and the support point (32) of the reverse bending unit (22) are constituted by the circumference of rollers (26, 27, and 33).